

مركزات الامم

Arafat says force is the way

BEIRUT, Jan. 19 (R). — Palestinian commando leader Yasser Arafat said today that force, not negotiation, was the way to achieve Palestinian rights. Mr. Arafat, Head of the Palestine Liberation Organisation (PLO), was speaking at the annual conference of the Palestinian Red Crescent, equivalent of the Red Cross. In an obvious reference to President Anwar Sadat's peace initiative towards Israel, Mr. Arafat said certain Arab rulers who believed they could regain occupied territory through negotiations were "dreaming". "The Zionists will never give up one inch of land unless they are forced to do so," he said.

JORDAN TIMES

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Israelis arrest two journalists

TEL AVIV, Jan. 19 (AFP). — The Israeli authorities have issued detention orders against two Communist Party journalists, pending investigation into spying charges, it was reported here today. They are Hans Lebrecht, an Israeli and a member of the country's Communist Party central committee who is correspondent for East German radio and French and Italian Communist Party publications, and Panayiotis Paschalis, a Greek Cypriot, correspondent of the Cypriot Communist Party paper Haravghi. Both were arrested on Tuesday. Reports here said both Mr. Lebrecht and Mr. Paschalis were suspected of working for the Palestine Liberation Organisation (PLO) with the help of an unnamed Arab country.

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Siad Barre leaves for San'a after talks with King

AMMAN, Jan. 19 (Agencies). — The Somali President Mohammed Siad Barre left here today for San'a after a three-day visit during which he held talks with His Majesty King Hussein and senior Jordanian officials on the latest Middle East developments, the situation in the Horn of Africa and bilateral relations.



Egypt's Foreign Minister Mohammad Ibrahim Kamel leaves his Jerusalem hotel for the airport before flying back to Egypt Wednesday evening. He is accompanied by U.S. Secretary of State Cyrus Vance (left). (AP wirephoto)

Fears of war circulate following break in Israeli-Egyptian talks

BEIRUT, Jan. 19 (R). — The suspension of peace talks between Egypt and Israel has raised fears in the Arab world of another Middle East war, informed diplomatic sources said here today.

Officially, hard-line Arab leaders described Egypt's sudden withdrawal from negotiations in Jerusalem as a manoeuvre which would lead eventually to further Egyptian concessions.

The sources said, however, many of them were worried that Israel might go to war if Egyptian President Anwar Sadat's peace initiative ended in deadlock.

Syrian officials were preparing for the possibility of an Israeli strike against south Lebanon and the Golan Heights later this year, they said.

Well-informed sources in Damascus told Reuters last week that a big shipment of Soviet arms, including sophisticated air defence missiles, was expected to arrive in Syria this month.

"There is widespread apprehension that the peace talks are doomed to failure and that the Middle East could be heading for another war," the diplomatic sources said today.

"Arab hard-liners believe that nothing can be gained through negotiations while Israel remains the most powerful military figure in the area."

"At the same time they are afraid that Israel might try to break any deadlock and impose a settlement on the Arabs by defeating them on the battlefield," the sources said.

The undercurrent of present opinion was reflected in an editorial in the Lebanese Al-Ahram, which warned that the present situation in the Middle East "is the calm that precedes the storm".

Volatile border
Political analysts said the volatile border region of south Lebanon could be the flash point between Israeli and Arab armies.

Several people have been reported killed in a flare-up of fighting in the past few days between Palestinian guerrillas and Israeli-backed rightist forces in the area.

Israeli pledge
Israel has pledged to support what it regards as a threatened Christian minority in south Lebanon, and the analysts said any further increase in the fighting there raised the threat of Israeli intervention.

Official comments from the PLO and government-controlled media in Syria meanwhile dismissed the suspension of the peace talks as a political manoeuvre.

Mr. Yasser Abed Rabbo, a member of the PLO Executive Committee, said: "Like all Sadat's manoeuvres, he is paving the way under the guise of intransigence for further concessions."

The Palestinians' official view was shared by Syria, which heads a hard-line Arab alliance opposed to President Sadat's peace initiative.

Damascus radio said the Egyptian leader was "playing an ill-disguised role which did not deceive anyone," while the daily Al-Thawra said his final objective was to sign a bilateral agreement with Israel.

Meanwhile in Iraq, the government newspaper Al Jumhuriya said in an editorial that what was happening was "a step towards total surrender to American imperialist designs".

A central theme of the criticism was that President Sadat had agreed to continue negotiations with Israel through a joint military committee at the request of President Carter.

As President Sadat ponders next move

Egypt pins hopes for peace to U.S. pressure on Israel

CAIRO, Jan. 19 (R). — Egypt today pinned its hopes for Middle East peace on the United States, pressing the American administration to exact concessions from Israel that would justify a resumption of suspended negotiations in Jerusalem. Informed Egyptian sources said officials in Cairo consider it possible that President Anwar Sadat may propose a meeting of himself, President Carter and Israeli Premier Menachem Begin.

The summit meeting would try to break the deadlock over Mr. Sadat's demands that Israel evacuate all Arab land occupied in the 1967 Middle East war, and allow self-determination for the Middle East's three million Palestinians.

But sources said that Mr. Sadat, in the seclusion of his lodge in the Nile Delta, 25 kms. north of Cairo, was still pondering his next move, following his dramatic recall last night of his delegation to foreign ministers' talks in Jerusalem.

Saturday speech

President Sadat was not expected to show his hand before he makes a speech to the People's Assembly (parliament) which he has scheduled for Saturday.

U.S. Secretary of State Cyrus Vance, now in Jerusalem, is to see Mr. Sadat tomorrow, before the Assembly speech.

The Egyptian leader conferred today with Foreign Minister Mohammad Ibrahim Kamel, recalled from the Jerusalem talks.

The official Middle East News Agency said Mr. Sadat later met Vice President Hosni Mubarak, Premier Mamdouh Salem and Foreign Minister Kamel.

Nobody in Cairo tonight excluded the possibility that President Sadat, rather than try to revive his peace effort, might announce that it had failed.

He has sounded increasingly gloomy about its prospects and told President Carter on the telephone last night that Israel sought only "the land, not peace" — to possess Arab territory rather than end 30 years of enmity with the Arabs.

Cairo will still host U.S. Jewish delegation

NEW YORK, Jan. 19 (AFP). — Egypt, its abrupt recall move notwithstanding, appears to be going ahead with plans to host a U.S. Jewish delegation in Cairo next week.

Egypt's ambassador to the United Nations confirmed that 15 rabbis and other American Jewish leaders were expected in Cairo for what was billed as the first Jewish-Muslim dialogue.

Invitations to make the week-long trip were sent by Egypt to the American Council of Synagogues, which groups most U.S. Jewish communities.

Speculation on resignation

Diplomats in Cairo said they were aware of speculation outside Egypt that Mr. Sadat, 59, might hand the People's Assembly his resignation, if he decided his peace gamble had failed. He has been in power since President Gamal Abdel Nasser died of a heart attack in 1970.

Veteran Sadat-watchers doubted this. They said the Assembly would be unlikely to accept a resignation and that Mr. Sadat's effort to negotiate peace with Israel was popular with ordinary Egyptians.

Long-time foreign residents of Cairo said many people were persuaded that it had been in the interests of Egypt and the troubled Egyptian economy.

The Israelis were clearly seen as the villains in Cairo today.

"They don't want peace," one secondary school girl said. Informed Egyptians were alarmed by Mr. Begin's remark today that Egyptian Foreign Minister Kamel had uttered a "preposterous statement" when he had called at the peace talks for the return of Israeli-occupied East Jerusalem to Arab rule.

Muslim sensitivity

Many Egyptians felt that Mr. Begin might at least have allowed for the sensitivity of Muslim Arabs to the fate of what is an Islamic as well as a Jewish holy city.

Cairo Radio broadcast patriotic songs today, but not songs such as "God is with You, Sadat" which were specially composed for the president's peace seeking to Jerusalem.

Speculation on the future of the peace effort was fuelled by the non-arrival of Israeli Defence Minister Ezer Weizman for military talks with the Egyptian War Minister, Gen. Mohammad Gamassi.

After being telephoned by Mr. Carter last night, Mr. Sadat reversed an earlier decision to cancel these discussions while recalling his team from the parallel Jerusalem talks.

Mr. Weizman was awaited in Cairo today but it was then announced that there were no plans for his arrival.

Some of the Israeli journalists who have been in Cairo for a month covering the peace story said that last night their security escorts confined them to their hotel, citing the changed mood in Cairo and saying it was for their safety.



Israeli Foreign Minister Moshe Dayan (left) and his Egyptian counterpart, Mohammad Ibrahim Kamel deal with newsmen's questions as they leave Premier Begin's Jerusalem office Wednesday prior to Mr. Kamel's sudden recall to Egypt. (AP wirephoto)

Begin attacks Egypt's approach to peace

OCCUPIED JERUSALEM, Jan. 19 (R). — Prime Minister Menachem Begin launched a scathing attack on Egypt's approach to peace today while Israeli officials analysed what caused yesterday's Egyptian withdrawal from negotiations.

Addressing a visiting French Jewish group, Mr. Begin reiterated that Israel would not give up the Jewish settlements in Sinai and would not permit a Palestinian state on the West Bank.

He said that Egyptian Foreign Minister Mohammad Ibrahim Kamel had made "the most preposterous statement ever made by a guest" when he arrived here on Sunday night to join the Jerusalem talks.

Mr. Begin was referring to Mr. Kamel's demand for East Jerusalem to be internationalised. "Jerusalem will be the capital of the Jewish people for ever and ever," Mr. Begin said.

This speech was in an even stronger vein than other Begin remarks which upset the Egyptians during the talks and which were partly blamed for the recall of the Egyptian negotiators.

Today's remarks, mark the worst setback to peace hopes since President Sadat made his breakthrough visit to Israel in November.

Israel would consider any proposal for altering the format of the foreign ministers' discussions, such as conducting them in secret or through intermediaries, the officials said.

In his speech, Mr. Begin emphasised the Sinai question and the future of Jewish settlements there which Egypt says must be dismantled. "This is one of the most vital issues of our national security," Mr. Begin said.

"There is no government in Israel capable of ordering the dismantling of these settlements in which so much sweat and toil were invested."

Mr. Begin also attacked the theory that Egyptian withdrawal might have been calculated to provoke American pressure on Israel.

U.S. role now crucial
JERUSALEM, Jan. 19 (R). — The sudden suspension of the most critical Middle East peace negotiations ever held has thrown a new responsibility on the American mediator, U.S. Secretary of State Cyrus Vance.

Besides trying to bring the parties together again, Mr. Vance now will have to try to ensure that there is no repetition of the public squabbling between Israel and Egypt which led President Sadat to recall his delegation suddenly last night, just two days after the talks began.

Up to now, Mr. Vance has acquiesced in the attempt by Egypt and Israel to organise and run their own peace talks, taking an active role principally in offering compromise suggestions for breaking deadlocks.

It has been a trying experience for American diplomats. American diplomats were crestfallen as they listened to Mr. Begin's controversial speech at a state dinner on Tuesday night which infuriated his guests of honour from Egypt. The diplomats reacted similarly to the curt reply from the Egyptian Foreign Minister.

Israel has always maintained that, given direct negotiations, it could reach a settlement with its Arab neighbours. This first experience will be sobering.

Mr. Dayan told reporters that the atmosphere and not the talks themselves had led Egypt to leave Jerusalem.

American diplomats say it was Israeli action to enlarge Jewish settlements in the Sinai and the West Bank that first poisoned the conference atmosphere.

The inability of Israel and Egypt to succeed on their own in creating the right organisation and atmosphere inevitably makes the American role more important.

And from the evidence of the past year, the U.S. will not shirk from the opportunity and responsibility. Much is at stake personally for President Carter in this effort and Mr. Vance's aides have no doubt that he will be back in Jerusalem within weeks if not sooner.

N. Yemeni envoy goes to Syria

DAMASCUS, Jan. 19 (Agencies). — The North Yemeni Foreign Minister Abdullah Al Asmaj arrived here from Amman today after a two-day visit to Jordan, during which he handed a message to His Majesty King Hussein from the North Yemeni president.

Immediately upon arrival here he held talks with the Syrian Foreign Minister, Abdul Halim Khadidam.

Mr. Asmaj is on a tour trying to canvass support for a North Yemeni proposal calling for an Arab summit to heal the rift which followed Egypt's bid for peace with Israel.

He has delivered messages from President Ahmad Hussein in Al Ghashmi to the leaders of the states he has visited.

Mr. Asmaj has already been to Saudi Arabia as well as Jordan, and is to visit Egypt and Libya later.

Assad meets PLO leaders

DAMASCUS, Jan. 19 (R). — Syrian President Hafez Assad conferred here today with two Palestinian commando leaders on efforts to strengthen the front opposed to President Anwar Sadat's moves towards peace with Israel.

Maj. Gen. Najiyamil, Deputy Defence Minister and air force commander, attended President Assad's meeting with Mr. Salah Khafaj and Mr. Mahmud Abbas, members of the Central Committee of Fateh.

Massawa bombed by MiGs, shelled from sea as Ethiopians bid to break Eritrean siege

MASSAWA, Eritrea, Jan. 19 (R). — Soviet-supplied Ethiopian MiG jets are using napalm bombs to try to break the siege of this Eritrean port city.

From five miles offshore, six warships, some of them supplied by the United States in the 1950s, others said by the Eritreans to be Soviet, lob shells onto the guerrilla supply lines.

A mortar bomb from the Ethiopian-held naval base exploded in the sprawling residential area now under guerrilla control.

Eritreans inch closer

Throughout the day the air, sea and land bombardment continues. It is sporadic, random and unsustained but it takes a steady toll in the crumbling city.

As the battle for this strategic Red Sea port enters its 34th day, the Eritrean People's Liberation Front (EPLF) holds three-quarters of Massawa and its trenches reach to within 50 yards of the Ethiopian positions.

Some 6,000 Ethiopians — soldiers, sailors and peasant militia are cornered in Massawa's coastal naval base and its island port.

Most of the city's 50,000 civilians have long since fled to the safety of outlying villages and improvised refugee camps in the arid hills to the west.

The depleted Ethiopian garrison, defeated twice in open battle with the EPLF guerrillas since the campaign began on Dec. 8, appears to be relying on newly-supplied Soviet heavy

arms to turn the tide in its favour.

Since the beginning of this year, the MiG-21 fighters have flown up to 30 sorties over the city each day, attacking with bombs and cannon, napalm and anti-personnel shells.

Artillery and heavy mortars and T-54 tanks — all Soviet-made — join in pounding suspected guerrilla positions, while offshore the ships fire in close support.

The Eritreans, now in their 16th year of war for independence from Ethiopia, answer with periodic barrages of their own, using tanks, mortars and artillery captured from the Ethiopians.

The guerrillas appear to hold the initiative and EPLF military leaders are confident of eventual victory, but they decline to speculate on when. "We will not attack until we are certain we will win," said one brigadier commander.

Walking through Massawa today, the devastation is visible in every corner.

"The price of war"

Its mosque lies in a heap of concrete rubble, loudspeaker crushed under a pile of broken brick and stone.

In the next street stand the remains of Massawa's secondary school, its windows blown out and holes gaping in its roof and walls. In the playground lies an American bomb casing, 100 metres away the charred and twisted wreckage of a dozen houses surrounds a 4 metre wide bomb crater.

The blackened body of a civilian caught in the crossfire lies

under a mangled sheet of corrugated iron. Sheep paw the wreckage in search of food while scores of starving, abandoned cats and dogs wander the streets aimlessly.

One EPLF guerrilla estimates that a quarter of the houses in Massawa have been destroyed.

USSR denies involvement in Ethiopia: Page 6

"This is the price of war," said another. "The main task of the revolutionary is reconstruction."

80 miles inland, in the town of Keren, the 16-year war is still much in evidence. The guerrillas captured Keren last year and it now lies far behind their front lines, but it is still within range of the Ethiopian jets.

The guerrillas say Keren and three other towns were bombed on Jan. 1 with anti-personnel and conventional bombs.

A week later, the EPLF says, the aircraft returned and bombed the Keren hospital. They gave no estimate of casualties, but damage was visibly heavy.

Shrapnel from the airburst anti-personnel bomb was observed over a wide area.

"This marks a new phase in our struggle," said one EPLF military leader of the attacks on civilian targets. "It is like what the Americans did in Vietnam near the end of their war."

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Pssst..... We told you so

It would be appropriate, perhaps, for the Arab League now to charter a small skywriting plane, fly it over Washington, Tel Aviv and the major capitals of Western Europe, and have it fill the skies with the simple message: "We told you so". Given the momentary break-up of the negotiations in Jerusalem between the Egyptians and the Israelis, one should now make a major effort to keep one's eye on the central issues that led to the great diplomatic bust-up. It would be a mistake for everyone simply to repeat the clichés of the past two months, clichés about the need to keep the momentum for peace going. The Egyptians have apparently maintained the principles of the collective Arab negotiating position, and in return for their stand they have been left empty-handed by the Israelis. So we have reached the position where keeping the momentum going for the past two months has left us with lots of momentum, but not much peace. It would be a mistake now to try and overlook or put aside the main issues of disagreement -- Israeli withdrawal and Palestinian rights -- in deference to keeping the momentum going. This would be a gruesome rerun of the old Kissinger tactic of playing for time, and postponing the difficult negotiations in favour of the easy and meaningless agreements.

One thinks that the Egyptians have been more than forthcoming in their talks with the Israelis, but what have the Israelis replied with, other than a ludicrous and insulting proposal based on the principles of institutionalised colonialism and racism that are the guiding principles of the Bantustan homelands of South Africa?

It is easy for the Arabs now to say, "we told you so", meaning that this week's events in Jerusalem have supported the fact that we have never expected the Israelis to be serious about peace negotiations, withdrawal or recognition of Palestinian national rights. But that would be a hollow exercise.

What is required now is not to keep any old momentum on track, but rather to provide the essential compromises that will allow a real momentum to replace the illusory progress that has been with us for the past two months. This will require those Western powers who have a special collective relationship with their client state of Israel -- a client state armed to the teeth and continually defying the entire world -- to show that they are serious about making the Israelis act reasonably. It is precisely because both the Israelis and their Western backers have acted unreasonably to date that Mr. Sadat has called time-out.

ARAB PRESS COMMENTARY

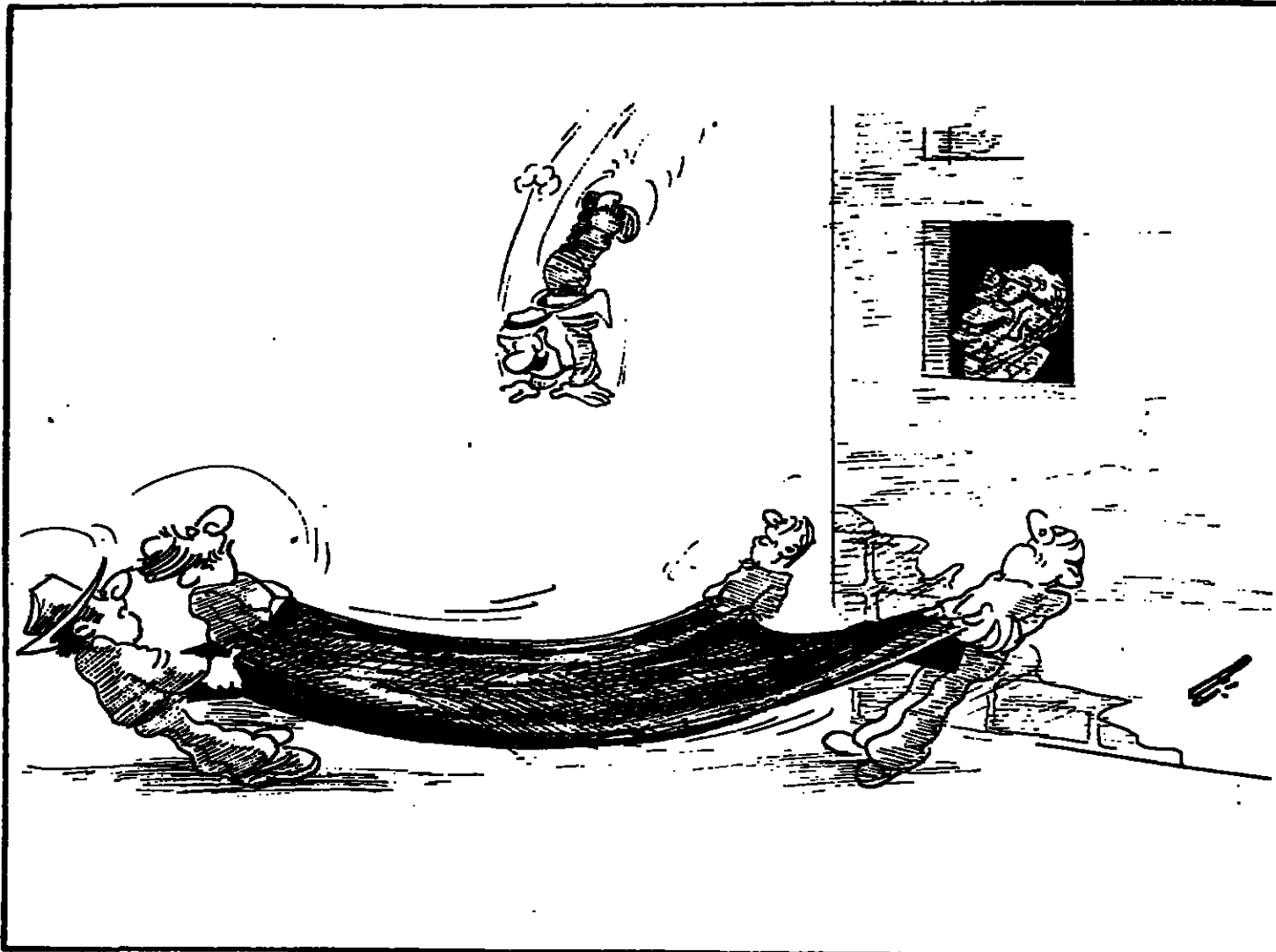
AL RA'I, on Thursday, said Israel on Wednesday reaffirmed for the thousandth time that it does not understand the language of logic and rationality and that its positions have nothing to do with humanity or cultural heritage because it closed the door to peace again through insistence on maintaining control over occupied Arab lands. The present situation calls for urgent Arab unity and solidarity because Israel has proved it can only understand the language it has been accustomed to speak with -- the language of war and weapons.

AL DUSTOUR said whether the situation that now governs the peace talks in Jerusalem is final or not, Israel has given proof of the deceptive way it prefers to negotiate with. President Anwar Sadat has undoubtedly reached the position of which he warned the Israelis not to lead him to. He has done well to state that he is not prepared to enter the Israeli trap. Israel will be mistaken if it believes its ways will force President Sadat into a separate peace agreement. It is easier for him to openly declare that he has tried and failed rather than go back on his stated principles -- and he will earn the Arabs' admiration and gratitude in a new stage where no illusions about Israel's enthusiasm for peace will exist.

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Growing sophistication as Statistics Dept. keeps figures timely

By John Rigg
 Special to the Jordan Times

"Figures are the best expression", says Mr. Jawad Salah, Chief Information Officer for the Department of Statistics. By this statement Mr. Salah began to explain the purpose of the Department's work. He says, "The figures accumulated through statistical data are indispensable for the future planning in all public and private sectors of Jordan's economy."

The Department of Statistics was established in April, 1949, and its work concerns all aspects of life in Jordan. The Statistical Law which was passed in 1950, summed up its eight main duties:

- Collect statistical information regarding population and do an accounting of public and private institutions.
- The information must be as accurate as possible.
- A census of Agriculture, Industry and Institutions is to be taken every five to ten years.
- Audit the records and accounts of public and private institutions.
- Work closely with other areas of the department to prevent duplication.
- The co-operation of all concerned.
- All information that is collected must be top secret.
- Clarify the specific obligations and duties of the information sources to the Department.

First undertaking

The Department's first undertaking, was a population census, which was carried out in August, 1952. This was necessitated because of the mass influx of Palestinians into Jordan at this time. In the late 1950's a census of independent corporations was carried out in an effort to gauge the flow of money coming into the country via these various enterprises, and in November, 1960, economic and social conditions were analysed in an endeavour to con-

ceive the future growth rate of agricultural production. This was followed by a complete survey in 1965. To ascertain the increase and/or decrease in the country's standard of living, questionnaires were sent out to many government employees and the general public. The following year, a census of manpower in large and small corporations was carried out and has been repeated every three years. The questionnaires dealt with economic status, professional qualifications, hours of work, sex, etc. and the corporations were classified as to particular businesses and their distribution in each city.

The Statistical Survey of 1970, was carried out to determine the connection between economic planning and the problems of the residents of the East Bank. The climatic conditions of this area and the Jordan Valley were the subject of another survey in 1973. The Jordan Valley's climate is apparently unique in this part of the world.

Investment in computer, calculators

All this data was calculated



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Sudan's envoy to Jordan nominated

AMMAN, Jan. 19 (JT). — The Jordan Times has learned that the government of Sudan has nominated Mr. Ahmad Dyab as its new ambassador to Jordan.

Supply Ministry works on \$11 million project to automate bread production in Jordan

In this final part of our two part series on the Ministry of Supply's campaign to keep the cost of living in Jordan frozen, we report on the integrated plan for grain silos, flour mills and automatic bakeries in the Kingdom.

By Ian Kellas
 Special to the Jordan Times

AMMAN, Jan. -- Man may not live by bread alone, but the average Jordanian gets through a good deal for all that -- four times as much, in fact, as the average European, according to the Minister of Supply, Marwan Kassim.

As the main cheap staple food, bread is a "strategic commodity" in Ministry of Supply terminology.

Each Jordanian consumes about 120 kilos of flour a year which amounts to a national demand for 360,000 metric tons of wheat per year. According to Abdullah Hamadneh, Projects Officer at the Ministry of Supply, Jordan last year produced only about 40,000 metric tons of its own grain to meet this demand.

The Supreme Ministerial Committee, UNRWA, various charities and the Ministry of Defence, all import grain, or flour but the bulk of the supplies is bought by the Ministry of Supply.

Just last week the ministry signed an agreement with the U.S. government to import a minimum of 50,000 metric tons of grain. This will cost not more than \$5.5 million. Under the U.S. P.L. 480 Title One agreement this sum can be repaid over a period of 20 years at an interest rate of two per cent. The deal covers the present U.S. fiscal year, to end on Sept. 30.

U.S. dominates

Last year the ministry imported 100,000 metric tons in this way and a further 95,000 metric tons on the open market. The U.S. of course, dominates the world's wheat market and provides most of Jordan's imports.

There is an important need in Jordan to guard against price fluctuations and shortages in flour. This means expanding present storage capacity. Jordan also has an interest in expanding its milling capacity, because flour is nearly twice as expensive as wheat.

That is why the ministry has undertaken to build two giant silos, a flour mill and a couple of automatic bakeries in an integrated project which will cost over JD 11 million in its first phase.

The first part of a large-scale process of bread-making will take place at Aqaba. Karnig Yacoubian, a Syrian company is to build a pneumatic gantries system at the port which will unload grain

There will be no water crisis in Amman in '78

AMMAN, Jan. 19 (INA). — Amman will not suffer a water crisis this year as happened in the past because the quantity of the subterranean water has been increased the Mayor of Amman Ma'n Abu Nuwwar has said. This is a result partly of heavy rainfall in the present winter season and partly of several operational measures taken by the Amman municipality.

Mr. Abu Nuwwar told a meeting of the Amman Municipal Council, that measures taken to provide more water for the capital included drilling of new wells, improving of the distribution system and construction of 45 earth dams for feeding and maintaining the subterranean water sources.

Mayor Abu Nuwwar stressed that laboratory tests are being carried out continuously on the Amman waters to ensure their suitability for drinking.

shipments and convey them in bulk to the first of the two silos, sited some way back from the docks. The equipment used in the gantries is from Buhler and Siemens, Swiss and West German companies respectively.

500 tons per hour

When in operation, the gantries will be able to shift 500 metric tons of grain per hour. This means that it will take about 40 hours to unload a 20,000-ton shipment -- a job which would at present take about a month. This will save not only precious harbour time but also handling costs. The grain will be unloaded in bulk rather than in sacks.

Each of the silos which will be used to store this grain has a capacity of 50,000 metric tons. The consultant work on the silos has been handled by the Swedish company, Agri Consult A.B. of Malmö. The actual construction is in the hands of Karnig Yacoubian (their contract was signed in May last year).

Explaining why this contract did not go to a Jordanian company, Abdullah Hamadneh points out that the Syrians are both very experienced, having built 18 similar silos in Syria, and inexpensive. Both silos and the gantries together will cost JD 6.5 million. With resources stretched, Jordan could not afford a failure in this area.

Now under construction the silos will be completed by July 1979.

From the silo at Aqaba grain will be transported straight up the Aqaba-Amman railway line to the second silo 15 kms to the south of Amman. This will mean putting the whole line back into working operation after a long period of disuse.

The second silo will be part of a big complex at Jwelda, sited right beside the railway. Next door to the silo will be a flour mill, a cold store and workshops. Projected for the future on the same site there is a third silo, an extension to the flour mill, a feed mill (for the bi-products of the flour extraction) and a housing estate.

W. German loan

Agri Consult signed an agreement with the ministry on Jan. 5 to provide "consulting services for the design and supervision of construction of a

flour mill". Their services will earn them JD 225,000. The mill will cost 2,300,000 and is to be completed in early 1980, (shortly after the silos).

Unlike the ministry's other projects which are financed directly from the budget, the money for the mill will be put up by the West German government in the form of a soft loan.

Privately-owned flour mills in Jordan have a total capacity at present of about 140,000 metric tons of wheat per annum. The new mill, staffed with 80 workers, will be able to handle about 60,000 metric tons p.a., and this figure could be doubled in the future if the mill is expanded. (There are various rates of flour extraction for wheat, depending on quality, which range from 65-85 per cent).

This will give Jordan the capacity to mill nearly all its own flour -- although demand will doubtless continue to rise with the population. Jordan may even become a flour exporter in the future.

Only 40 bakers needed

Some of the processed flour will be picked up from Jwelda and taken by road to the ministry's new automatic bakeries. One of these, sited near the television studios, is already in operation.

Werner and Pfleiderer from Stuttgart have recently signed an agreement to supply, erect and run a second line next door to the existing one. This will make for a total capacity of 11,000 loaves per hour (the present one produces 5,000- or 190,000 per day. This is equivalent to about 20 per cent of local demand. Together the bakeries will cost JD 330,000.

The whole process in the bakeries is fully automated and it will require only about 40 people to run them both and distribute the bread. Asked if this was going to put private bakeries out of business, Mr. Hamadneh said that these already face great difficulties in finding labour and many are going automatic themselves. The new bakeries will greatly reduce costs and improve the quality of bread.

Government subsidies have now been removed from everything but wheat and flour. Once completed, this ambitious bread-making project will substantially reduce the last big subsidy which is paid out at present to provide Jordanians with their most basic foodstuff.

مكة دامت الأمل

Lack of funds hampers protection of monuments

AMMAN, Jan. 19 (JT). — Director of Antiquities Adnan Al Hadidi said that the policy of his department was to protect antiquities by claiming the surrounding pieces of land for further research and excavation. He expressed his regret that the department did not have the necessary funds for acquiring those pieces of land which were becoming daily more expensive.

He went on to say that his department was trying to acquire among others three pieces of land near the palace in Azraq, three near the northern amphitheatre alongside the Street of Columns, and two in the Roman street in Madaba. This would only be possible if the money was available, he added.

Arab satellite discussed at Riyadh

AMMAN, Jan. 19 (JNA). — The Director General of the Telecommunications Corporation, Mohammad Shahed Ismael, the chairman of the Arab Space Communications Corporation, and his accompanying delegation returned here from Riyadh today after attending the eight-day meetings of the ASCC council.

Mr. Ismael said upon arrival that the ASCC council had taken a number of important decisions.

First, it had finalised the plan for choosing a number of companies, which would be responsible for giving advice on the implementation of the ASCC projects.

Secondly the council had taken serious decisions concerning the implementation of the Arab satellite project. This project will cost around \$200 million.

And finally, the ASCC council had elected its new chairman, Dr. Ali Mohammad Masshat from Iraq.

National News Roundup

W. German-Jordan cooperation accord signed

AMMAN, Jan. 19 (JNA). — The Minister of Agriculture and the West German ambassador to Jordan signed an agreement on technical cooperation in the fields of veterinary medicine and forestry at the Ministry of Agriculture today. Under this agreement the West German government will provide Jordan with the necessary support including experts and vehicles for the implementation of a number of projects.

Industry minister receives envoys from China and India

AMMAN, Jan. 19 (JNA). — The Minister of Industry and Commerce Dr. Najmeddine Dajani received in his office today the Chinese ambassador to Jordan. They discussed means of strengthening trade and economic relations between the two countries. The ambassador expressed his country's readiness to import large quantities of Jordanian phosphate. Dr. Dajani today also received a message from his Indian counterpart on economic cooperation between Jordan and India. In his message, which was handed over by the Indian Charge d'Affaires in Amman, the Indian minister invited Dr. Dajani to visit India.

Austria's president to visit Jordan

AMMAN, Jan. 19 (JNA). — The Royal Hashemite Court announced today that the Austrian president will visit Jordan in March at the invitation of His Majesty King Hussein for talks aiming at the strengthening of bilateral relations.

Alia delegation leaves for the Gulf

AMMAN, Jan. 19 (JNA). — A delegation from the Royal Jordanian Airways Corporation, Alia, left here today for Oman, Bahrain and Kuwait to discuss means of strengthening cooperation between Jordan and these countries, in the field of aviation.

Technical committee for Hijaz railway to be formed

AMMAN, Jan. 19 (JNA). — The cabinet decided to form a Jordanian technical committee for the Hijaz railway. The Committee, headed by the Under-Secretary of the Ministry of Transport, Hashem Al Taher will examine qualifications of consultant firms, prepare a working programme and submit its recommendations to the higher committee which includes ministers of communications in Jordan, Syria and Saudi Arabia. The technical committee is scheduled to meet in Riyadh during February to finalise the working programme for re-opening the railway line.

Fabulous fortunes are becoming rarity in U.S.

NEW YORK (AFP). — Really fabulous fortunes are becoming a rarity in the United States, even though a lot of people are still making a financial success of their lives.

The death this month in Florida of John MacArthur means there are now only two billionaires left: The New York businessman Daniel Ludwig and a Texan called Ross Perot, and some experts have doubts about Mr. Perot's membership of the club.

According to the Guinness Book of Records and Fortune Magazine the club included at one time John Rockefeller, the steel magnate Andrew Mellon who both died in 1937, along with Henry Ford who died in 1947, oil bosses Paul Getty and Howard Hunt, plus the eccentric Howard Hughes.

It is hard to imagine how anyone can actually make use of \$1 billion, or to conceive of the financial and industrial empire that could handle such a sum.

Neither Mr. MacArthur nor Mr. Ludwig have been in the public eye, as they have appeared more worried about press inquiries than stock exchange movements.

Mr. MacArthur died at the age of 80, modestly as he had lived. He gave his body over to medical research, declined a public funeral and left virtually all his money to charity.

Some reports say he amassed \$5 billion, but he lived in three rooms in one of his Florida houses, had no secretary or limousine, and was often mistaken by hotel guests for one of the staff.

He did his business in one corner of the hotel bar and had no wish to join in social events like cocktail parties which he considered a big bore.

He was a curious mixture. He spent a huge sum moving and preserving a 75-year-old tree during a real estate project, but was known to have thrown some poor old folk out of their homes.

He took part in the search for the Delong ruby, a valuable gem stolen in New York in 1965, and paid the ransom money demanded in order to have the stone back. He owned 10 insurance companies.

The only officially-recorded billionaire left is 80-year-old Daniel Ludwig, who made his fortune out of shipping.

About 10 years ago he grew worried about a paper pulp shortage and had a variety of fast-growing trees planted in Brazil over an area larger than the state of Connecticut.

He saw this as a historic venture comparable with that of the pioneer Cecil Rhodes in Africa.

Ross Perot of Texas is a much younger man at 46, and better known to business colleagues than to the press.

He financed part of the Richard Nixon presidential campaign in 1968, and hit the headlines two years later when he tried, vainly, to send two Boeings loaded with Christmas presents to U.S. prisoners in Vietnam.

This affair is believed to have cost him a great deal of money, and business magazines are not too sure whether he is still a billionaire strictly speaking.

Bachelorhood is a main cause of traffic accidents says survey

BAGHDAD, Jan. 19 (AFP). — Bachelorhood is one of the main causes of traffic jams and road accidents here according to a research report from the Sociology Department of the Baghdad University Arts Faculty.

Unmarried drivers used their cars more often and habitually used the horn and other noisy instruments such as radios and cassette players, which worsened the traffic situation, the report said.

The researchers, however, had somewhat mixed feelings about the solution. One suggestion was the creation of a special fund to persuade single traffic offenders to get married.

Marriage gave drivers a sense of responsibility the report said. But the sociologists recognised that premature marriages could produce results that were much more serious than road accidents.

People in the News

Muhammad Ali signs for exhibition fight

JOHANNESBURG, (R). — World heavyweight boxing champion Muhammad Ali has signed a \$500,000 contract for an exhibition bout with former champion Jimmy Ellis in Swaziland, it was announced here Wednesday. Promoter Mangaliso Alfred Kumalo told a press conference here the fight would take place on April 20. Ellis held the World Boxing Association heavyweight title between 1968-70.

Polanski dropped as director of Hurricane

LOS ANGELES, (AFP). — Film Director Roman Polanski, in prison after pleading guilty to charges of having sexual relations with a 13-year-old girl, has been dropped as director of the film Hurricane, Producer Dino De Laurentis said here. Mr. De Laurentis, who had previously said that Mr. Polanski was indispensable to the film, which is to be shot at Bora Bora in Tahiti, said he had changed his mind because of rising production costs. Mr. Polanski is currently detained for psychiatric examinations ordered by the judge. He could be free by mid-March, but equally risks a prison term of up to 50 years.

Love comes first for American married men

NEW YORK, (AFP). — Love comes first for American married men, according to a survey in the women's magazine Redbook. It reported that 81 per cent of men questioned by their wives said what they wanted most from their partner was love. After that came a sense of humour (67 per cent), intelligence (64 per cent) and self-confidence (56 per cent). Only 16 per cent of men questioned rated breasts top of their physical attraction list. 40 per cent were leg men and 33 per cent looked first for a pretty face.

Sex Pistols wind up U.S. tour

NEW YORK, (AFP). — The Sex Pistols, the British Punk rock group which has just concluded its first United States tour, has had a mixed reception. However, thanks to advance publicity, their seven concerts were a sellout. The group deliberately avoided the major cities like New York and Los Angeles and chose small low-price halls. Their aim was to reach a working-class audience and thus recreate the atmosphere of the London clubs where they made their reputation. Although U.S. press coverage of the tour dropped after the first concert, in Atlanta, Georgia, the Sex Pistols had an unexpected press agent: The U.S. Immigration Department, which initially refused them entry visas until overruled by the State Department.

"Hypnotic waves" used on chessmaster?

ZURICH, (R). — Soviet defector Viktor Korchnoi said he had been subjected to "hypnotic waves" in an attempt to make him lose the world chess championship qualifying match against Soviet grandmaster Boris Spassky in Belgrade. Mr. Korchnoi told reporters at Zurich Airport he thought the waves were coming either from Spassky or someone in the public gallery. This explained why Spassky appeared at the board wearing sunglasses, a sunshade or underwater goggles at various times, Mr. Korchnoi said. Before he won the match on Jan. 12, Korchnoi's camp said he was being bombarded by "death rays" from the Soviet KGB secret police.

Amman Stock Exchange Report

NAME OF CO.	Market share value	Volume traded in JD	Opening price	Highest selling price	Lowest selling price	Closing price	Last buying bid	Last selling bid
Jordan Petroleum Refinery	5,000	4,954	6,900	6,900	6,900	6,900	6,800	6,900
Arab Bank Insurance Co.	5,000	760	7,600	7,600	7,600	7,600	—	—
Jordan Electricity Co.	1,000	261	1,250	1,250	1,250	1,250	1,250	—
Jordan Cement Factories	10,000	150	15,100	15,050	15,050	15,050	—	—

Total volume traded, Thursday, Jan. 19: JD 6,125

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Carter will focus on troubled economy in State of Union message

WASHINGTON, Jan. 19 (AFP). — President Jimmy Carter will use his State of the Union message tonight to launch a new offensive aimed at showing him an effective administrator. Mr. Carter, whose popularity has slipped in recent months, has made it clear that the chief executive's annual message will focus on the troubled economy. This comes as no surprise with the dollar in the dumps, Wall Street stagnating at its lowest levels in two years, unemployment continuing high and a trend toward higher inflation.

The president must shore up an image tarnished by the difficulties of governing with a cantankerous Congress, albeit one dominated by his own Democratic Party.

His first goal remains the speedy approval of the controversial energy programme stalled in Congress for months. He will not doubt the importance of a compromise on fuel-saving measures to reducing the payments deficit and defending the dollar.

Mr. Carter will also sketch the outlines of an income tax cut that he is expected to propose at the end of the week to consolidate growth beyond the second half of 1978.

To underline the importance he attaches to the economic

situation, the president will send Congress a long message detailing his policies on Friday.

Bad but not worst

The real terms growth in the U.S. came out at more than five per cent last year, and although inflation was speeding up at the end of the year it is basically still around six per cent, which is higher than the West German and Swiss figures but better than the rate elsewhere in the industrial West.

Unemployment remains high but it fell sharply in December to 6.4 per cent against 6.9 to 7.1 per cent in the previous six months or so. The December jobless rate means the go-

vernment may well have done what it set out to achieve by the close of 1977.

As to the external accounts, the deficit was \$17 billion last year and the picture is unlikely to brighten much even if the Americans trim their huge deficit with Japan.

The rise in investment threatens to be slower this year and this will hamper recovery while food prices are rising substantially.

All in all, economists in Washington feel that the outcome of 1977 for the U.S. was more encouraging than for most other industrial countries of the West.

Aims to restore confidence

Thus, President Carter no doubt sees his job as consolidating the position and keeping the economy on the move, rather than giving a good boost to the leading economy in the Western World.

Above all, the administration wants to restore overall confidence, which has taken a beating with the fall of the dollar on the money markets and the weakness on Wall Street which is at its lowest key for two years.

The State of the Union address was expected to cover foreign policy only briefly, stressing what Mr. Carter considers the need to ratify quickly the Panama Canal treaties.

The ratification process, which requires a two-thirds majority in the Senate, promises to be long and drawn-out.

The president will also probably mention the Strategic Arms Limitation Talks (SALT), the Middle East and foreign aid.

Mr. Carter wound up 1977 under heavy criticism, both from business and political leaders. His efforts to pull through the canal treaties and his energy plan look crucial for his image.

Analysts note that since the New Year, the public generally appears to have grown more confident to some extent. Various polls show consumers somewhat more optimistic than they were a few months back.

At the same time, the business community seems far less critical of the administration than it was about three months ago.



A watch is a must; and not just "a watch" but a precise, dependable and elegant chronometer. "Slava" timepieces, produced in Moscow to meet the most fastidious international standards, are extremely popular both in the Soviet Union and abroad. The Second Watchmaking Factory produces annually eight million watches and clocks and by the end of the five-year plan period this figure will amount to ten million.

Schmidt declares West Germany "economically stable", prepared to help world economic expansion

BONN, Jan. 19 (AFP). — Chancellor Helmut Schmidt today said West Germany was prepared to contribute to world economic expansion but would not want to share responsibility for rekindling inflation.

In a government statement opening the new session of parliament, the chancellor said the West German government would therefore continue to follow a policy that he said would be "half-way" between acceptance of higher public indebtedness and the requirements of the fight against inflation.

Mr. Schmidt, who insisted that West Germany had met its "international responsibilities" in the economic field, said the Bonn government welcomed President Jimmy Carter's statements that it was important for the world economy to maintain a strong dollar.

He added that the agreement concluded early this month between the U.S. Federal Reserve and the West German

Federal Bank showed that the United States was prepared to contribute to stabilising the situation on the foreign exchanges.

The chancellor commenting on domestic economic trends, said the government and the central bank had done what was possible to strengthen the country's economy, reduce unemployment and maintain West Germany's competitiveness on overseas markets.

It was now up to the "social partners" — industry, employers and wage earners — to make a contribution to faster

economic growth, he said.

Mr. Schmidt said that despite the continuing world economic crisis and "the terrorist threat", West Germany had shown itself as an "economically and politically stable country" in 1977.

He said the European Economic Community had overcome the consequences of the world economic crisis "in a better way than many had thought" and had preserved member countries against "a return to commercial protectionism, a policy of self-sufficiency and national egotism."

Japan's Sonoda discusses trade expansion with Iran, ends tour

TEHRAN, Jan. 19 (AFP). — Japanese Foreign Minister Sunao Sonoda arrived here today for a seven-hour stop-over visit before returning home at the end of his Middle East tour.

This was the Japanese minister's second visit to Tehran within a week. He spent 28 hours here before going on to Kuwait, the United Arab Emirates and Saudi Arabia.

Today Mr. Sonoda met with his Iranian opposite number, Mr. Abbas Ali Khalatbar, and discussed Japanese-Iranian trade expansion and the Middle East crisis.

In Riyadh

Mr. Sonoda left Saudi Arabia earlier today after a three-day stay during which he discussed mutual trade and the Middle East situation with Saudi leaders.

A joint communiqué issued in Riyadh today said Mr. Sonoda and Saudi Foreign Minister Prince Saud Al Faisal agreed that pursuing moves for a just and durable Middle East peace was of great significance for world peace.

The official Saudi Press Agency said today that Oil Minister Sheikh Ahmad Zaki Yamani had stressed to Mr. Sonoda "the kingdom's needs for industrialisation and technology in return for oil sales to Japan."

Mr. Sonoda, conferred separately with Crown Prince Fahd, Sheikh Yamani and Planning Minister Hishan Nazer.

The official agency quoted Mr. Nazer as saying he had agreed with Mr. Sonoda that a joint Saudi-Japanese committee should hold its second meeting in Tokyo in the near future to discuss further cooperation between the two countries.

The two ministers also agreed to bring to a speedy end to negotiations on giving the Saudi National Airline, Al Saudiyah, landing rights in Tokyo, Mr. Nazer said.

They further reviewed negotiations between Saudi government and Japanese firms on setting up a petrochemical project in Saudi Arabia, he added.

LOCAL EXCHANGE RATES

	Jordanian Dinar
Buying/Selling	315.00/317.00
U.S. dollar	608.00/612.00
U.K. sterling	148.30/149.20
W. German mark	156.90/157.80
Swiss franc	66.50/66.90
French franc	36.10/36.30
Italian lire (for every 100)	130.40/131.20
Japanese yen (for every 100)	138.40/139.20
Dutch guilder	95.70/96.30
Belgian franc (for every ten)	67.40/67.80
Swedish crown	

McNamara arrives in Egypt for talks on boosting aid

CAIRO, Jan. 19 (R). — World Bank President Robert McNamara arrived here yesterday on a week-long visit at the invitation of the Egyptian government for talks on boosting the bank's help for Egypt.

Mr. McNamara, saying he was happy to visit Egypt, paid tribute to President Anwar Sadat's Middle East peace initiative.

On his talks, Mr. McNamara told reporters that he would discuss the bank's assistance to Egypt's agricultural drainage project.

Mr. McNamara will confer with Premier Mamdouh Salem and other officials.

Mr. McNamara will also have talks with the Chairman of the Suez Canal Authority, Moshour Ahmad Moshour, on projects to develop the waterway.

The World Bank has contributed a \$100 million loan for the first stage of an ambitious programme to widen and deepen the canal, which would cost \$360 million.

The Cairo newspaper Al Massara said Mr. McNamara's talks would also deal with the possibility of the bank's contributing to this country's five-year development programme, beginning this year.

The paper said Mr. McNamara was expected to discuss the reorganising of a consultant group on Egypt's economy, which met in Paris last year.

The group comprises a number of West European countries, the United States, Japan, Iran and several Arab states. Its task is to seek ways of helping Egypt's ailing economy.

Belgium reduces bank rate from 8.5 to 7.5%

BRUSSELS, Jan. 19 (R). — Belgium's bank rate was reduced from 8.5 to 7.5 per cent, making borrowing easier now that the Belgian franc is stronger.

The National Bank said the new rate would be effective from today.

The bank rate was last changed on Jan. 5 when it was reduced to 8.5 per cent from the crisis level of nine per cent used to defend the franc last month in the European joint float, the system in which several countries keep their currencies close together.

A bank rate cut of at least half a percentage point had been widely expected by the foreign exchange market in view of the franc's recent strength against the mark.

Dealers said the franc weakened slightly on the announcement to 15.485 francs to the mark from the early 15.465 and to 33.0508 francs against the dollar from 32.953 francs.

Dealers said further cuts in the bank rate may take place in the next few weeks as the Finance Ministry and the National Bank are known to favour a lower interest rate structure in Belgium to provide the maximum possible elbow room for any economic recovery.

During December's speculation on a European joint float realignment, Belgium raised its bank rate in two stages to a record nine per cent from the six per cent at which it had stayed for six months.

NOTICE

A representative from the Internal Revenue Service will be at the American Embassy from Jan. 21 to Jan. 25 to give assistance to U.S. tax payers.

Please call the American Embassy, Tel. No. 44371, Extension 230 for an appointment.

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Demand for armoured cars rises

PITTSFIELD, Massachusetts, Jan. 19 (AFP). — Armoured cars are in big demand by oil sheikhs, South African businessmen, Argentinian officials and other customers, according to a new company called Armoured Vehicle Builders here.

The firm, which was set up three years ago and employs a staff of 60, has an eight-month delivery delay. Last year it provided 300 armoured cars and 425 armoured trucks, or about twice the number of vehicles it produced in 1971.

The 1977 turnover exceeded \$3 million, the price of a protected vehicle varying from \$30,000 to \$200,000. Materials used include lightweight steel, reinforced glass fibre and "special" plating.

Some vehicles are designed to emit clouds of teargas in the event of an attack by armoured assailants.

Vietnamese tighten their belts some more

HANOI, Jan. 19 (AFP). — After the end of a devastating 30-year war the Vietnamese are further tightening their belts.

Food rations have not increased because a grain shortage was aggravated by three successive bad harvests. The cost of living in the free market has skyrocketed since 1972 while salaries have virtually remained static.

The meat quota is still fixed at 300 grams per person each month, or an average of 10 grams daily though labourers receive up to one kilo. The average monthly grain ration remains at 15 or 16 kilos. Eggs, fish and fish sauce are available "according to the supply" — that is, rarely.

Even the popular bowl of noodles, which may be served as breakfast or dinner, has shrunk in size and costs now more than two dong against less than one dong in 1972.

Wages have virtually remained the same in the face of a price increase for stable commodities. But it must be conceded that school fees, housing and other miscellaneous expenses are only a small burden for an average Vietnamese couple.

Navajo Indians will use the Landsat to help with agriculture management

The Navajo Red Indians of Arizona have recently made an agreement with NASA to use the LANDSAT Earth Resources Satellite to help them in the management of their reservation. This article explains how Landsat works, and reveals some of the benefits it is bringing to mankind.

By Geoffrey Hugh Lindop

LONDON — The Navajo Indians in the United States are to use the Landsat Earth Resource Satellite to gain information about forestry, agriculture, ecology and land use on their 16 million acre reservation.

National Aeronautics and Space Administration (NASA) staff will demonstrate how the Navajos can use the satellite data, and eventually will train them to set-up and operate their own laboratory in their tribal headquarters in Window Rock, Arizona.

An orbiting satellite has a unique vantage point on the world. It can see large features which do not show up on closer examination by more conventional methods.

Heat reflector

The earth not only reflects sunlight, but it also reflects heat — or more correctly infra-red. A plant, for example, will reflect a different quantity of heat than a tar-mac road. In fact, such a roadway is so characteristic, when observed in infra-red, that it provides a very useful point of reference in compiling Landsat data.

Landsat carries a colour television camera, whose response is somewhat shifted to the infra-red end of the spectrum by comparison to the cameras used in a television studio. To improve the quality of the picture, the Landsat camera is composed of 4,000 scanning lines. The domestic television receiver works on 625 lines. The pictures themselves cover a ground area of 13,225 square miles.

In addition to the camera, the scene before Landsat is analysed by a multispectral scanner, which samples the radiation coming from the earth at four sharply defined wavelengths, again with the pre-emphasis on the heat, or infra-red, radiation.

Technicians using the data from this equipment can differentiate between a healthy crop and a diseased one, and between deep and shallow water.

Data from Landsat is transmitted to ground stations in the United States, Canada, Italy and Brazil, and during the periods that the satellite is outside the range of these stations, it transfers the information onto onboard tape recorders for subsequent transmission back to earth.

Landsat orbits

The orbit of the two Landsats in operation have been chosen with great care. The first criterion is that they should not be too high above the earth in order that surface definition is preserved and also the orbit should be near circular, so that the same area of the ground is scanned at any instant.

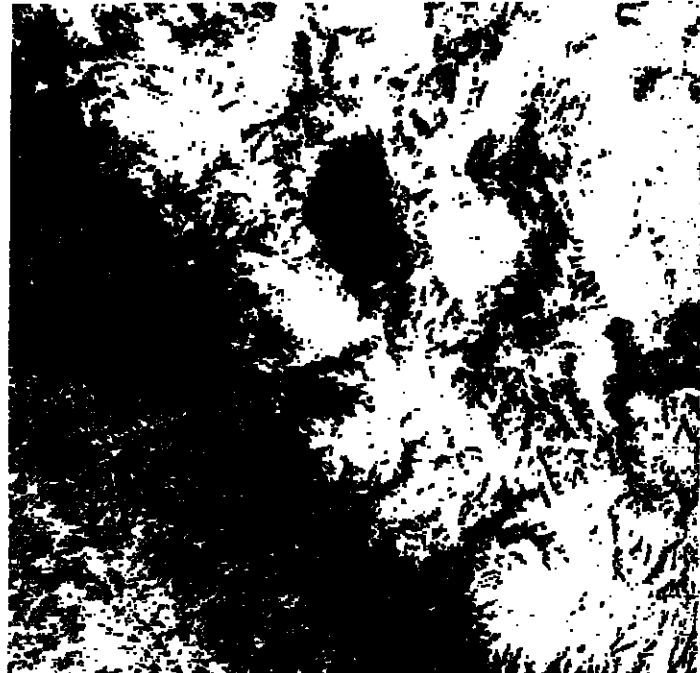
At its working height of approximately 900 kms, Landsat has easily resolved a four line highway and under good conditions even single roads and individual bridges have been seen.

The second criterion of the orbit is to achieve global coverage. This is done by putting Landsat into an orbit over the poles. Each Landsat covers the globe in 18 days.

Thirdly, in order to obtain consistent results from the satellite it is necessary to have the sun at a constant angle with respect to the satellite and the earth.

If the sun were directly behind the camera, then no shadows would be seen. It might be thought that having the sun at right angles to the lens would be best, but this would correspond to 6 o'clock in the morning, local time on the ground, and if Landsat passed over the winter hemisphere, the sun might not have risen.

The designers opted for a transit time of approximately 9:30 a.m. local time. That is to say that at that time, Landsat passes directly over our heads.



This Landsat picture of the Sierra Nevada mountains in the United States, was recorded earlier this year and reduced to earth. It covers 13,225 square miles and shows Lake Tahoe in the centre. Measurements made from this image reveal that the snowline at the time the picture was taken was 2,000 ft. higher than in a comparable 1975 image, a near-normal snowfall year. Accurate information of snowmelt is invaluable to scientists planning the best use of water for irrigation, power generation and for cities.

What Landsat does

Early on in its career Landsat-1 mapped sewage and acid waste outside New York harbour. This information is invaluable in pollution control, and is difficult to derive so accurately by any other means.

The satellite has already mapped the Amazon basin, a typical example of how difficult and inaccessible regions may be accurately mapped. The face of the world is changing all the time, and maps quickly become out of date. Landsat provides a means of mapping large areas quickly and frequently.

In 1973 the Mississippi flooded its valley. Landsat-1 mapped the area in order that the maximum relief effort could be directed to the most needy areas, and that damage could be quickly assessed. In addition it provided accurate data on how the flood developed, by means of which river dynamics are better understood.

The geologist has also used Landsat to advantage. A fault had been detected in the Chinese mountains of Tien-Shan. It is probable that the Chinese used their own earth resources satellites, China 4 and China 5, to help in the early warning of the disastrous earthquakes that affected China in August, 1976. Similar faults are completely undetectable by conventional methods.

Landsat has helped in the detection of oil bearing and water bearing rocks, as well as locating the site of possible gold deposits in a hitherto undiscovered dry river valley in Arizona.

Landsat is controlled from the Earth Resources Satellite Operations Centre at NASA's Goddard Space Flight Centre, which receives some 10,000 images per week from the multispectral scanners of the twin satellites. It is a commercial venture and NASA charge something like \$200,000 per year for Landsat facilities, which is cheap considering that crop disease in the U.S. costs \$3.8 billion per year.

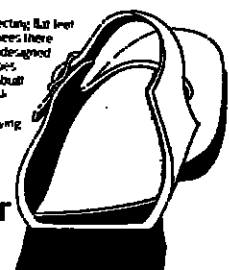
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مكتبة الامم

As China urges talks Viets accuse Cambodia of new border attacks

BANGKOK, Jan. 19 (Agencies). — A senior Chinese envoy held talks in the Cambodian capital of Phnom Penh today believed to centre on the country's border war with Vietnam, and obliquely urged the two communist nations to make peace. Meanwhile, the Vietnamese Radio made no mention of the Chinese mission in Phnom Penh but broadcast a communique accusing Cambodia of mounting new attacks in Vietnam's eight border provinces.

Mme. Teng Ying-chao, a Vice Chairman of the Chinese Parliament and widow of Premier Chou En-lai, flew to Phnom Penh from Peking yesterday amid speculation that China was trying to persuade Vietnam and Cambodia to negotiate.

She held talks soon after her

arrival with Mr. Pol Pot, Cambodian Prime Minister and Communist Party Chairman, and other ministers, Radio Phnom Penh, monitored here, said today.

Mme. Teng did not refer directly to Vietnam-Cambodian relations in a speech at a reception in her honour last night.

But, she urged socialist countries to apply the five principles of peaceful co-existence in their relationships with one another.

Though she did not criticise Vietnam by name, Mme. Teng implicitly supported Cambodia's stand in the border conflict which flared into open warfare a month ago.

Skirmishes are still reported, but both sides are believed to be consolidating positions occupied two weeks ago, when Vietnamese troops won stretches of strategic Cambodian border territory.

Nevertheless, Hanoi Radio said today that Cambodia has carried out new border attacks.

The radio said Vietnamese soldiers and militiamen in most cases had repelled the Cambodian raiders and forced them to fall back across the border. But, up to last night the radio said, some Cambodian units were still occupying a few areas in the two southern border provinces of Kien Giang and An Giang and in Long An Province, which faces the Parrot's Beak area where the heaviest fighting between Vietnam and Cambodia was reported.

Soviet involvement in Ethiopia denied

MOSCOW, Jan. 19 (R). — The Soviet Union last night categorically denied that any of its warships or aircraft were involved in the fighting in Ethiopia. An authoritative statement issued by Tass news agency rejected what it called allegations that Soviet military personnel and thousands of combatants from other communist countries were fighting on Ethiopia's side in its conflict with Somalia. Tass said it was authorised to state that "all these inventions are completely groundless." The decision to issue a statement reflected apparent Kremlin concern at the impact of Somali and other accusations, observers said. Such pronouncements are made here only when the Soviet Union wants to emphasise its own point of view.

Nkomo, Mugabe agree U.K. talks

MAPUTO, Jan. 19 (AFP). — The Rhodesian nationalist Patriotic Front has agreed to resume talks with Britain and suggested meeting Foreign Secretary David Owen on Jan. 26 in Malta, it was announced here.

The front announced its decision here today at the end of a four-day summit of co-leaders Joshua Nkomo and Robert Mugabe, together with their main collaborators.

At a press conference the front also said the two exiled nationalist leaders had discussed "a programme of consolidating the unity of the Patriotic Front" and a "further intensification of the armed liberation struggles."

The front's summit meeting here, the third in six weeks, came after a renewed invitation by the British foreign sec-

retary to Mr. Nkomo and Mr. Mugabe, to talks aimed at putting an end to the five-year-old Rhodesian war, within the framework of the Anglo-American settlement proposals.

The front froze all negotiations with Britain last December when Mr. Nkomo and Mr. Mugabe accused Dr. Owen of not coming out categorically

against Rhodesian Premier Ian Smith's "internal" negotiations with the front's rival "moderates" in Salisbury.

The last meeting between the front co-leaders and a British negotiator was early in November when they held 90-minute talks with British Resident Commissioner-Designate for Rhodesia Lord Carver.

Brezhnev has a "chill"

BONN, Jan. 19 (AFP). — Soviet leader Leonid Brezhnev has postponed his visit to West Germany scheduled for next month for reasons of health, it was announced here today. In a personal message to West German Chancellor Helmut Schmidt, Mr. Brezhnev said his doctors had advised him to postpone the trip "to a later date" and to rest after suffering a "chill", a West German government spokesman said. The newspaper Frankfurter Allgemeine Zeitung had reported earlier yesterday that Mr. Brezhnev, 72, had cancer of the hip bone.

Quebec opens bigger Canadian questions

There is no majority in Quebec for seeking full independence from the rest of Canada -- but no majority either for keeping the Canadian confederation unchanged in its present state. The country's future hangs in the balance -- and may do so for some time.

By Wolf Luetkens

QUEBEC — The struggle for the future of Quebec has developed into a war of words, a year after the election of a Parti Quebecois government in that French-speaking Canadian province.

It is no less serious for that. The future of Quebec and of Canadian confederation hangs in the balance and may do so for a long time yet.

The protagonists are both from Quebec: Mr. Pierre Elliott Trudeau, son of a French-speaking father and an English-speaking mother, has been the Canadian Prime Minister since 1968, whose political raison d'être has been the preservation of the unity of a nation part English and part French; and Mr. Rene Levesque, once a political friend of Mr. Trudeau's who decided ten years ago that French-speaking Quebecers could not satisfy their cultural and economic ambitions except in a state of their own.

No love is lost between the two men, so that there is almost no hope of progress from a meeting arranged between them as part of Mr. Trudeau's soundings of what the ten provincial governments think about national unity.

But some movement can be detected behind the smokescreen of words from the original hard positions: On the one side independence, on the other no concessions to Quebec.

The Parti Quebecois is usually described as separatist, but does not use the word. It has spoken of sovereignty, or of independence. Now it has coined the term of "sovereignty in association", words intended to convey a continued economic association with Canada.

There is good reason for this vagueness: A succession of opinion polls have shown that there is no majority in Quebec for seeking full independence.

Equally, there is no majority in Quebec, and perhaps not even in the rest of Canada, for leaving the Canadian confederation unchanged. Quebec and the country's western provinces want a greater measure of devolution of political and economic power to provincial level.

Mr. Trudeau has signalled his readiness to go beyond simple devolution by granting special privileges to Quebec in the light of its special position as the one Canadian province where the French are in a majority (of about four to one). He did so by saying that for the time being Quebec could be allowed to opt out of a constitutional guarantee, which he has proposed, for the right of both English and French speakers to have schooling in their own languages.

For reasons of prudence he has not challenged the Parti Quebecois government's most prized achievement so far, the Charter of the French Language.

age. The charter seriously restricts the use of English in the Quebec courts and in business, making French the official language of the province.

Oddly enough there is reason to suppose that even many French are critical of the charter. One of its purposes is to break the dominance that the English have enjoyed in the business world of Montreal, once the financial and commercial capital of Canada.

But its ill-effects on business, causing a considerable exodus of companies, has also hurt French-speaking Montrealers who have been providing services for company headquarters. It has hit the rising French managerial class.

Since Quebec habitually has more unemployment than Canada at large, jobs lost in this fashion could seriously damage the Parti Quebecois unless it manages to persuade Quebecers that the blame for unemployment should really attach to the Canadian system.

Mr. Levesque has given himself until 1979 before putting the issue to the test of a referendum. The result will be heavily affected by how well people think the Parti Quebecois has lived up to its election promise to provide good management.

The large non-French minority will turn against separation of whatever kind. But against that Mr. Levesque can count on the nationalist enthusiasm of the young. In addition, confederation may suffer from the exasperation of English Canada with the Quebec problem. It may be that "renewed federalism" may prove insufficiently cohesive to keep Canada together.

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News-Features



Presidential Palace guard salutes as Italian Communist Party leader Enrico Berlinguer leaves the offices of President Giovanni Leone in Rome on Wednesday. Mr. Berlinguer was summoned by the president as part of the latter's consultations with party leaders to name a new premier. (AP wirephoto)

Italian Communists hint at a leftwing coalition government

ROME, Jan. 19 (R). — President Giovanni Leone today completed talks with senior politicians on Italy's political crisis after a surprise hint from the Communists that they might consider joining a government without the ruling Christian Democrats.

But with every major party leader repeating known positions after seeing the head of state, there appeared little hope of a quick solution to the crisis.

Christian Democratic leader Giulio Andreotti resigned last Monday after refusing leftwing demands for an emergency government including Communist ministers.

While repeating that demand, the Communists last night hinted at an alternative solution -- a leftwing administration excluding the Christian Democrats, who have led every Italian government since World War II.

The suggestion was predictably dismissed by Christian Democrat leader Benigno Zaccagnini but it was also rejected by the Republicans and Social Democrats whose support the Communists would need.

Both said any administration without the Christian Democrats was unthinkable at present.

All parties are agreed, however, that early elections -- they would be the third in six years -- are not the way out of the deadlock.

In his search for a solution, President Leone, having consulted the major party leaders, today received representatives of the smaller parliamentary groups. He was also scheduled to visit former President Gio-

vanni Gronchi, 90, to seek his advice.

The president is expected to turn once again to Signor Andreotti and ask the caretaker premier to try to form a new government.

A Communist leader, Signor Fernando di Giulio, yesterday said that if the Christian Democrats failed to form a new cabinet "it is in the rules of

the democratic game that the head of state may ask a man not belonging to the party of the relative majority to try to form a government."

But Signor Andreotti is unlikely to be hurried. The average length of time between the fall of one Italian government and the formation of the next has been over a month in recent years.

Bolivian hunger strike compels general amnesty

LA PAZ, Jan. 19 (R). — A mass hunger strike throughout Bolivia was called off last night after President Hugo Banzer gave in to most of the strikers' demands, including a general amnesty for all the governments jailed and exiled opponents.

Gen. Banzer, who seized power more than six years ago, announced the amnesty yesterday in the face of mounting strikes and political turmoil throughout the country.

Former President Luis Siles Salinas, speaking for some 1,000 hunger strikers in eight cities, said the strike was called off because of Gen. Banzer's announcement.

He said the government also agreed to reinstate all workers fired for labour union activities and immediately release all political prisoners.

But the government has not agreed to lift a ban on union activities, or withdraw troops occupying Bolivia's tin mining area.

The strikers were demanding a general amnesty to pave the way for general elections scheduled for next July.

The demonstrations turned violent on Tuesday when security forces raided six of the venues for the hunger strike, mostly Roman Catholic colleges and churches. A 17-year-old demonstrator was shot dead in La Paz.

Gen. Banzer lost the support of the rightwing Bolivian Socialist Falange (FSE) Party and was threatened with ex-

communications by the Roman Catholic hierarchy.

Eanes agrees to a Socialist coalition with conservatives

LISBON, Jan. 19 (AFP). — Portuguese President Antonio Ramalho Eanes last night agreed to the formation of a coalition government between outgoing Prime Minister Mario Soares' Socialist Party and the conservative Democratic and Social Centre (CDS).

President Eanes had reportedly hoped that Mr. Soares would gain the unspoken support of the Communists, but instead they criticised the proposed alliance with the conservative CDS as bad for the economy and for democracy.

Portugal has been without a government since Mr. Soares lost a confidence vote last Dec. 8. Foreign loans have been held up until formation of a government which can implement austerity measures.

Mr. Soares said last night that his pact with the CDS would enable him to govern "in stability and for a long time."

He added that the Socialist Party "will not put the social and political conquests of the revolution in question."

The CDS is the only party in Portugal not to advocate socialism and the only one that failed to vote in favour of the Constitution, which calls for a transition to socialism.

A presidential communique said last night that the formalities for officially naming Mr. Soares to form a government had begun.

The president was next to consult the Council of the Revolution and had called on party representatives to meet with him, it said.

Mr. Soares informed the president earlier yesterday that he was ready to form a new government after reaching an agreement with the CDS that will give him a total of 143 seats out of 263 in the Republican Assembly -- the Portuguese Parliament.

Once he is officially designated prime minister again, he will have ten days to present his government's program for approval by the assembly which will have a maximum of five days to debate it. The CDS will be participating in the government for a first time.

Peru accuses Ecuador of 2 border raids

LIMA, Jan. 19 (R). — Peru last night said neighbour Ecuador had occupied part of its territory and attacked Peruvian troops stationed at the border. A Foreign Ministry statement said the incidents "compromise relations between the two countries and could affect peace."

The statement said an Ecuadorian helicopter yesterday attacked a Peruvian guard post but was driven without inflicting any Peruvian casualties. Another guard post had come under attack on Tuesday from Ecuadorian troops, who were also repelled, it said.

For over a century, Peru and Ecuador have contested sovereignty of territory in the strategic upper Amazon. The most recent of incidents over the issue ended with the Rio Protocol of 1941 which awarded most of a disputed region to Peru. Ecuador has since denounced the treaty.

World News Briefs

Indira Gandhi ordered to court again

NEW DELHI, Jan. 19 (AFP). — The Shah Commission today derided former Indian Prime Minister Mrs. Indira Gandhi to a second magistrate court's prosecution today when she refused to take the oath and answer questions. Justice J. C. Shah previously ordered the prosecution of the former premier on 11 when she refused to testify before him.

S. Africa said to approve of torture

LONDON, Jan. 19 (AFP). — Amnesty International, the prize-winning London-based human rights organisation, last night the torture of political detainees by South African security police is "routine and receives tacit government approval." The organisation, which campaigns for the release of "prisoners of conscience" world-wide, has already made the charge in its Annual Report released last month. But, at a press conference here last night, a new report on violations of freedom of movement, expression and association in South Africa was sent in which the charge was stressed that the Pretoria government was giving tacit approval to the use of torture.

Hijacked Ecuadorean plane lands in Cuba

HAVANA, Jan. 19 (AFP). — A hijacked Ecuadorean airplane landed here early today after stops in Guayaquil (Ecuador) and Panama. The 18 passengers that had been held hostage by five-member crew got off the plane. At the Guayaquil stop hijackers had released old people, women and children. The crew were unable to see the aircraft and could only catch a glimpse of the passengers and crew from a distance. Cuban authorities refused to make any statement.

Filipino troops battle rebels in south

MANILA, Jan. 19 (AFP). — About 1,000 government troops backed by helicopters, inflicted heavy losses on some 700 rebel fighters in a major battle on Monday in the central Mindanao Region, southern Philippines, a military spokesman said today. The spokesman for the Southern Command said government troops suffered several wounded in heavy fighting for four hours. The battle was one of the biggest reported in south since a fragile truce, forged in Mindanao in Dec. 1976, collapsed last September.

Two men tried to hijack Spanish ship

PALMA DE MAJORCA, Spain, Jan. 19 (R). — Two armed men hijacked a small Spanish freighter off the Canary Islands Sunday and forced the crew to sail to the Algerian Port of the ship's captain said last night. The hijackers, carrying machine guns, were disarmed by Algerian police and refused to return to Oran. But they escaped and swam ashore.

Carter to name Midwestern as FBI head

WASHINGTON, Jan. 19 (R). — President Carter will name a Republican judge from the Midwest, William W. to succeed Mr. Clarence Kelley as Director of the Federal Bureau of Investigation (FBI), informed sources said today. Judge W. is who sits on the U.S. Court of Appeals in St. Louis, the nomination from U.S. District Judge Frank McGarr of Chicago, the sources said.

Most U.S. arms sales in 1977 went to Iran

WASHINGTON, Jan. 19 (R). — Iran was the world's biggest purchaser of American arms in 1977, buying \$5.8 billion worth -- more than half the total, the U.S. Defense Department reported last night.

Saudi Arabia was the second biggest buyer with orders of \$1.8 billion -- but far below its 1976 highest-year total of \$5.8 billion.

United States arms orders by Israel dropped by nearly half -- from \$1 billion in 1976 to \$552 million last year. But major U.S. decisions are still pending on proposed Israeli purchases of the U.S. F-15 and F-16 fighters.

Iran's 1977 military equipment purchases showed a big jump from the 1976 figure of \$1.6 billion and exceeded the previous high of \$4.2 billion in 1974.

The Defense Department said in its Annual Statistical Arms Sales Summary that weapons deals for the 1977 financial year, which ended on Oct. 1, totalled \$11.2 billion.

testing an underground launch tunnel, 16 to 32 kms. long and completely enclosed in a concrete shell which the MX missile could break through when fired.

The MX, by being able to move up and down the tunnel on its transporter, would have a better chance of surviving than the present 1,000 Minuteman missiles in their fixed sites.

The Minutemen will become vulnerable to newer, more ac-

curate Russian missiles in the early 1980s.

The sources said that recent information showed that completely enclosed concrete tunnels for a force of about 250 missiles could not be built with any certainty as to costs or their ability to withstand nuclear blasts.

The sources said the Nuclear Test Ban Treaty, which forbids above-ground testing, has added to the uncertainty. In addition, estimates just to construct the tunnels have run to more than \$3 million per 1.6 kms.

The Defence Science Advisory Board Panel, made up of top civilian scientists, also recently argued that the concrete encasement might funnel nuclear blast pressures the length of the tunnel, and destroy the MX.

The sources said the air force therefore would now concentrate its testing on a new concept -- a tunnel with less expensive, unhardened "soft spots" and with "spurs" to the left and right that would allow the MX to move quickly out of the main tunnel to avoid the pressure blast.

The "spurs" would contain hardened concrete launch sites for the missile, which would be about twice as big as the Minuteman and be able to carry more accurate and larger multiple nuclear warheads.

Although the air force will now focus mainly on the new tunnel concept in its testing, the sources said it will continue to consider other launch site options, including above-ground transporters.

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